Maximo Product Update - 2011

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Please note:

- IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision.
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Maximo - Asset Management for a Smarter Planet



A smaller, flatter, faster and "smarter" planet

Transportation Assets

Facilities

Production Equipment

IT Hardware & Software

Communications infrastructure











THE CHALLENGE: more complexity in assets and processes, more capabilities required, more reliance on management systems

THE OPPORTUNITY: More insight and collaboration, more efficiency, growth and profit, more innovation



INSTRUMENTED



INTERCONNECTED



Maximo's role in a Smarter Planet:

- The IBM system to manage intelligent assets
- Leveraging asset intelligence to maximize their business value
- Reducing the cost of managing and operating intelligent assets

How Maximo does this:

- Visibility, control, and automation across IT and operational infrastructure
- Optimized operational and IT processes to achieve more with less
- Managing both the asset and the service to deliver customer value 2010 IBM Corporation



Development Principle: Drive Higher Customer Value

Objectives

- Enhance Maximo best-in-class capabilities and solutions
- <u>Drive innovation</u> with input from customer groups, advisory councils and business partners
- Continue to produce <u>High Quality</u> products; leverage customer input during every step of the development cycle
- Protect customer investment; upgrades to future Maximo versions
- Commit to <u>Open Standards</u>: J2EE, SOA
 - both IBM and non-IBM platform components



Maximo Development Focus

- Continue to Enhance Version 7 core capabilities, architecture, platform and technology
- Incremental Features and Value-add capabilities to extend Version 7
- Expand deep Industry Solution functionality and new Growth areas such as:
 - Intelligent Buildings
 - Safety, Risk and Compliance
 - Facilities Management/Space Planning
- Leverage IBM products and technology



2010 Roadmap Highlights

We had a very busy year.....

9 Product Releases

- Improvements to 4 add ons

Scheduler

Archiving

Everyplace

Primavera Adapter

 Improvements to 5 Industry Solutions

Service Provider

Internal Service Provider

Oil and Gas

Utilities

Life Sciences

Maximo Asset Management Delivered Products 2010 Maximo for Energy Optimization 7.1.1 IBM Real Time Asset Fix-pack 6.2.6 Life Sciences 7.1.2 Maximo for Oil & Gas 7.1.2 Fix-pack 6.2.7 Maximo Scheduler 7.1.1 **TAMIT 7.2.1.0 Maximo Adapter for** Maximo EveryPlace 7.1. Q2 2010 Q3 2010 Q4 2010 Q1 2010 Maximo Space Planning for Facilities Fix-pack 7.1.1.7 Maximo ECRI integration Maximo for Data Center Fix-pack 7.1.1.8 Infrastructure Management

4 new products released

- Maximo for Space Planning
- Maximo for Data Center Infrastructure Management
- Maximo Real Time Asset Locator
- Maximo Everyplace

New Maximo Content added and available for download

Maximo ECRI integration for Healthcare

Note: Other content for download includes, Maximo FileNet integration and Maximo ITM for monitoring



Maximo Space Planning for Facilities Management

Integrated Computer Aided Facilities Management (CAFM) with Maximo Asset Management to address the challenges faced by Facilities Managers:

Increased emphasis on employee mobility and flexibility

Total cost of occupancy is an organization's 2nd largest cost

Reduce costs by managing occupancy levels

Track energy costs based on building usage/occupancy

Key Capabilities

Space Design, Management & Accounting

- IT Infrastructure Management
- LAN and telecom information
- Move Management
- Occupancy Management
- Business continuity and safety information
- Mechanical, Electrical, Plumbing
- Lock & Key Management
- Building Infrastructure Management
- Business Resumption/Contingency Planning
- Hazardous Condition Tracking



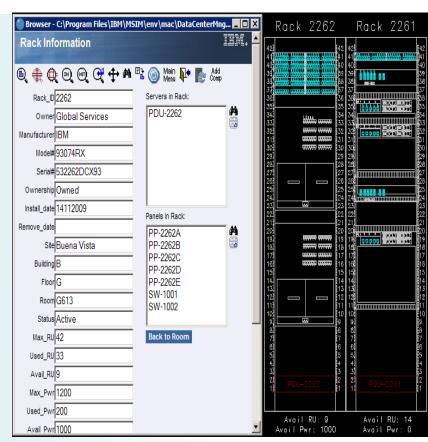


Maximo Data Center Infrastructure Management

Visualizes and manages the physical infrastructure of the data center including IT and non-IT assets, facilities, space, power, cabling and network connectivity.

Highlights

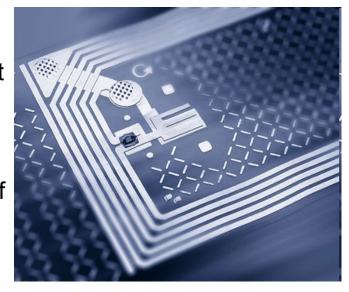
- ✓ Visualize data center space, including top view and rack elevation view
- ✓ From visual representation drill into details of a specific location, asset or equipment
- √ View point-to-point connectivity of data center assets and equipment
- ✓ Plan Moves, Adds and Changes based on space and power capacity, and heat dissipation
- ✓ Scenario planning to determine future configurations
- ✓ Integration with Tivoli Asset Management for IT allows exchange of asset data and leverages workflow engine from data center drawings
- ✓ Reduce operational costs and mitigate risk by enabling more optimal use of the data center infrastructure
- ✓ Provide facilities and data center management a common view of the infrastructure





Real-time Asset Locator

- IBM Maximo Real-time Asset Locator allows
 Maximo customers to manage and trigger Asset
 events based on the real-time location of an asset
 from within the Maximo Asset Management
- IBM Maximo Real-time Asset Locator provides Maximo clients the ability to access the location of assets using RFID and other supported real-time location technologies. Support for multiple sensor solutions (Ultrasound, RFID, WiMax, etc.)

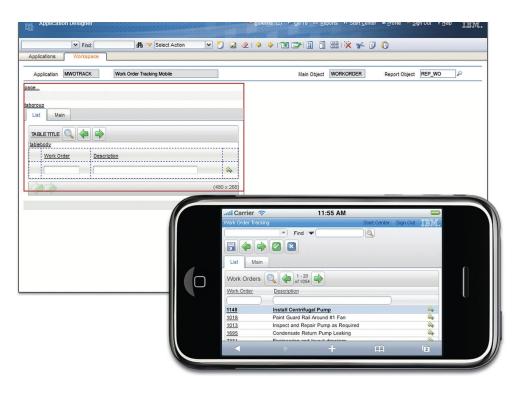


- Improves compliance support in highly regulated markets where events must be triggered based on locations.
- In highly regulated industries, like Healthcare and Life Sciences, the location of assets may trigger specific service management and disposition rules



IBM Maximo Everyplace

Allows users to access any existing IBM Maximo application on an iPhone, iPad, iPod touch, Android or other supported device without installing anything on those devices



Maximo Everyplace enables users to:

- Shorten the lag time between an event's occurrence and the recording of that event in the system. There's no need to wait until they get back to their desk to enter or retrieve data.
- Increase accuracy of data in the system by allowing them to enter information while it's fresh in their minds.
- Offer convenient, targeted access to Maximo for workers who don't regularly sit at a desk or use a desktop computer.



Product Portfolio – 2011

Core Solutions

Maximo Asset Management Maximo Asset Mgmt Essentials Maximo for Energy Optimization

Maximo Space Planning Maximo for Data Center Infrastructure Mgmt Intelligent Building Management

Industry Solutions

Utilities

Life Sciences

Nuclear Power

Transportation

Government

Oil & Gas

Add-On Solutions

Service Provider

Archiving

Spatial

Scheduler

Internal Service Provider SMART Mobile Work Mgr

Calibration

Asset Configuration Manager

Change & Corrective Action Mgr

Linear Assets

SMART Mobile Inventory Mgr

MX Mobile Asset

MX Mobile Inventory Mgr

MX Mobile Work Mgr

Everyplace

SMART Mobile Auditor

SAP ERP Adapter

Oracle ERP Adapter

Primavera Adapter

MS Project Adapter

Real Time Asset Locator

Safety Risk & Compliance



2011 Asset Management Product Roadmap

Maximo Asset Maximo Spatial Maximo Industry Maximo Asset Mgmt Management Asset 7.5.1.0 Solutions 7.5.0.0 7.5.0.0 Management Industry Solutions Oil & Gas 7.5.0.0 · Add-on's Transportation IBM Real Time Asset Locator for Utilities Maximo Asset Healthcare Life Sciences Configuration 7.5.0.0 Maximo Space Planning Manager 7.5.0.0 **Nuclear Power** for Facilities 7.5.1.0 IBM Real Time Asset Government Maximo Asset Mgmt. Locator 7.5.0.0 Essentials 7.5.0.0 Maximo for Service Providers 7.5.0.0 Maximo Archiving Maximo DCIM 7.5.1.0 with Optim Data Maximo Adapter for Maximo Mobile Suite **Growth Solution** Oracle 7.5.0.0 7.5.0.0 7.5.0.0 Maximo for Internal Service Providers Maximo for Safety, Intelligent Building 7.5.0.0 Risk & Maximo Adapter for management Solution Maximo Everyplace Compliance SAP 7.5.0.0 7.5.0.0 7.5.0.0 Q2 2011 Q3 2011 Q4 2011 2012 Maximo Scheduler Maximo Space Maximo Mobile 7.5.1.0 Fix-pack 7.1.1.9 Fix-pack 7.5.0.1 7.5.0.0 Fix-pack 6.2.8 Planning for Facilities 7.5.0.0 Maximo Adapter for Maximo Everyplace Primavera 7.5.0.0 Intelligent Building 7.5.1.0 Fix-pack 7.1.1.10 Maximo for Data Management Solution 1.x.0.0 Center Maximo Adapter for Infrastructure Microsoft Project Mgmt 7.5.0.0 7.5.0.0 **TAMIT 7.5.0.0** Fix-Packs Maximo for Energy Optimization **TSRM 7.5.0.0** Maximo adapter for 7.x.0.0 Releases 7.5.0.0 ITM 7.5.0.0 **CCMDB 7.5.0.0 New Products** Planned Releases

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What's Next?.....

Maximo 7.5!





Maximo 7.5 – 3 Major Areas of Focus

- 1. New & Enhanced Supply Chain Management
 - PO/PR/RFQ/Invoicing
 - Inventory/Receiving

- Expanded Capabilities
- Customer Driven Requirements
 - Satisfy Functional gaps
 - Improved Usability/Maintainability
 - Address Integration/ERP

- 2. Return on Investment
 - Automation Scripts
 - Application data Import/Export
 - Enhanced Migration Manager
 - Usability & Performance

- Additional Configuration
- Lower Cost of Implementation
- Lower Cost of Ownership
 - Easier to configure & support

- 3. Continued Leadership and Innovation in EAM
 - Enhanced Work & Asset Management
 - Linear Asset Visual Control

- Deep Vertical Functionality
- Improved End-User interaction



Maximo 7.5 (Q2 2011) – Expanded Footprint

Asset	
Management	

Locations

Repair Facilities

Asset

Asset Templates

Failure Codes

Linear Assets

Visual Control

Condition Monitoring

Meters

Meter Groups

Work Management

Job Plans

Revisioning

Routes

Service Requests

Work Order Tracking

- Assignment Tab
- Hard/Soft Reservations
- Repair Facilities

Safety

Quick Reporting

Labor/Crafts

Tools

Preventive Maintenance

• PM Forecasting

Master PM

Assignment Manager

Materials Management

Item Master

Storerooms

Inventory

- Inventory Usage
- LIFO/FIFO Costing
- Consigment
- Transfer via
- Shipment

Default Costing

Condition Codes
Stocked Tools

Service Items

Purchasing

Request for Quotation

Receiving

Receiving Inspections

Shipment Receiving

Purchase Requisitions

- Invoices
- Invoice Reversals
- Purchase Orders
- Revisioning
- Receipt Tolerance
 Desktop Requisitions

Contract Management

ptation Purchase Contracts

Master Contracts
Warranty Contracts

Lease/Rental Contracts

Labor Rate Contracts

Premium Pay Rates

Payment Schedules

Service Management

Service Groups SLA Management

Change Management

- •Incidents
- •Problems
- •Changes
- •Releases
- Solutions

Enhanced Workflow – Event Driven, Context-based / Escalation Manager

KPIs / Reporting/ Ad-hoc Reporting / Cognos Integration

Security/Administration/Configuration - Automation Scripts, Migration Manager

Integration/Web Services - Import & Export direct from applications



Maximo 7.5 Highlights





Maximo 7.5 Technical Platform

Developed on current R7.1 Architecture:

- J2EE based Enterprise Application
 - Web Application Interface for users to access Maximo applications via Browser
 - Fully configurable from presentation content to the business logic
 - Configurable Authentication (Database based or LDAP based)
 - Integration mechanisms via Web Services, JMS, HTTP, EJB, XML files, Flat files and Interface tables in database
 - Built-in reporting using BIRT/Cognos/TCR and support for integration with customer's reporting systems
- Supported Application Servers
 - IBM WebSphere Server
 - Oracle WebLogic Server
- Supported Database Platforms
 - DB2
 - Oracle
 - SQL Server



Maximo 7.5 Planned Platform Updates

Updated:

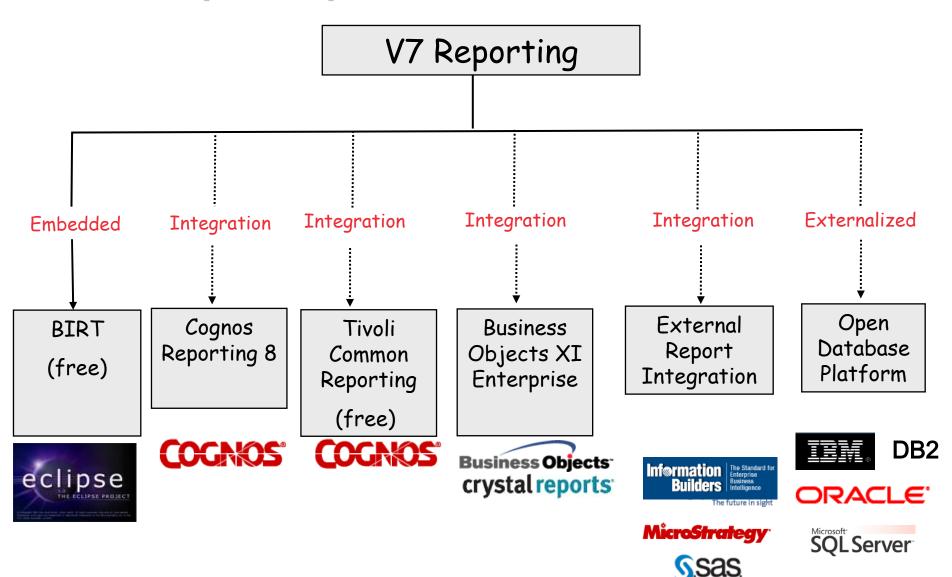
- Operating Systems
 - AIX 7.1
 - RHEL 6
- Database
 - DB2 9.7
 - DB2 9.8
- Application Servers
 - Websphere Server 7
 - Weblogic Server 10.3
- LDAP
 - Tivoli Directory Server 6.3
 - Windows Server AD 2008 R2

Deprecated:

- Operating Systems
 - AIX 5.3
 - RHEL 3
 - RHEL 4
 - SLES 9
 - All Linux 32 bits flavors
- Database
 - DB2 8.2
 - DB2 9.1
- Application Servers
 - WebSphere 6.1



Maximo Open Report Architecture





Maximo 7.5 Reporting Enhancements

- Give the User the ability to copy an Ad Hoc Report and Edit it (add/delete fields) as needed
- Implement Report Schedule Limits by Security Group
- Direct Print with Attachments property added in V6. Equivalent Property value added for BIRT in V7.
- Enable localization of Report Object Structures (ROS) Values Cognos Packages as seen to the end user within Report Studio or Query Studio
- Enable report emails to be sent via links instead of pdf, xls attachments (new Report Viewer application)
- Report Schedule Limits Report Administration Report
- Enable Rich Text Formats to display in BIRT Reports
- Enable direct launch to Cognos from applications
- Additions/Deletions of Report Design files to provide continued value-add for clients (updated for 7.x application enhancements)



Business plans change, Users make mistakes, 'stuff' happens throughout the Supply Chain Management process...

- Submitted PO needs quantity adjustment or change item numbers: PO
 <u>Revisioning</u> allows user to modify, resubmit and retain history of original PO
- -Shipment is received, recording the receipt with incorrect packing slip number: User can now <u>Void Receipt</u>, <u>Receipt Quantity Tolerance</u> can prevent incorrect amounts from being received (saves time and reduces data entry errors)
- -Vendor Invoice was entered and approved, later it was discovered unit price for an item was incorrect: *Action to Reverse Invoice*, backs out approved invoice, user can duplicate, make corrections and approve



Business plans change, Users make mistakes, 'stuff' happens throughout the Supply Chain Management process...

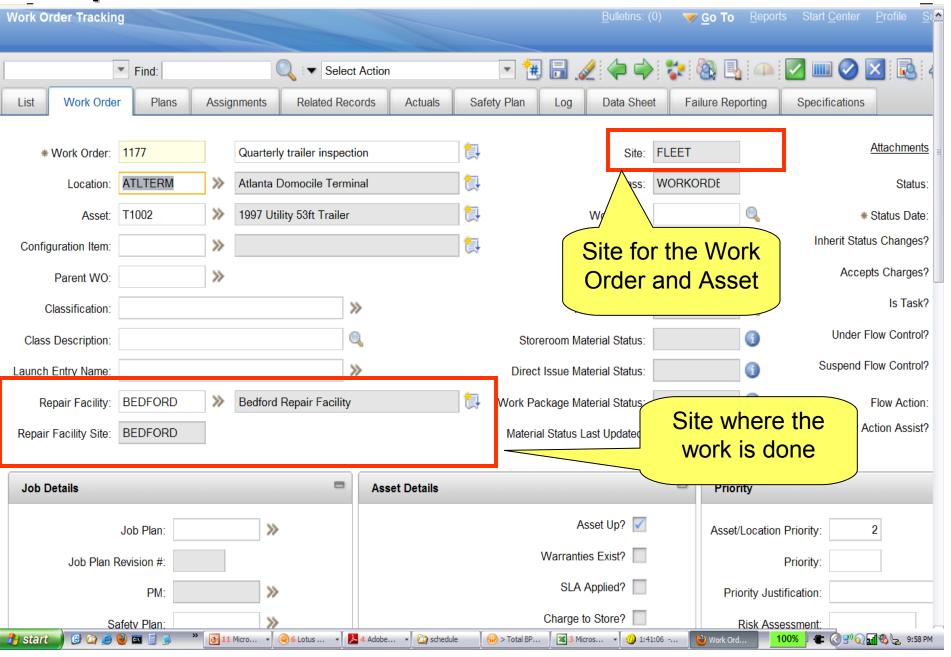
- Some of the Items we issue require inspections and approval before delivering the order: <u>Inventory Usage</u> streamlines the process, supports workflow for issues & transfers, staged and shipped items, multiple assets/bins per line.
- We need more flexibility with how we manage the cost of our inventory items... more like what we can do in our ERP system: 'New' costing method added to allow for valuation at actual receipt costs on a <u>LIFO or FIFO</u> basis
- Our work schedules are tight, we need to make sure reserved parts are available when we need them: Issues and transfers can now be defined as either 'Hard or Soft' reservations...a 'hard' reservation blocks the reserved quantity from being available for other requests



• Customers are pushing their maintenance staffs to be more efficient and require processes that support these efforts....

- I need to enter a dozen of the same type of asset, it's painful to have to enter them each individually and making updates to them later on is just as bad: <u>Asset templates</u> can be used to create multiple assets or to update multiple existing assets with common asset information
- Frequently a truck from one of our other sites pulls in and needs maintenance while they
 are here: Repair Facility locations enables work orders & PM's to be completed for Assets
 from different sites
- We have stringent controls on when a Job Plan can be changed and we need to retain history: <u>Job Plan Revisioning</u> can be enabled, each previous version is kept for full history and compliance
- We need to look ahead at our PM's scheduled dates: <u>PM Forecasting</u> tab allows generating forcasted PM dates, dates can be changed or re-forcast as necessary

Repair Facilities

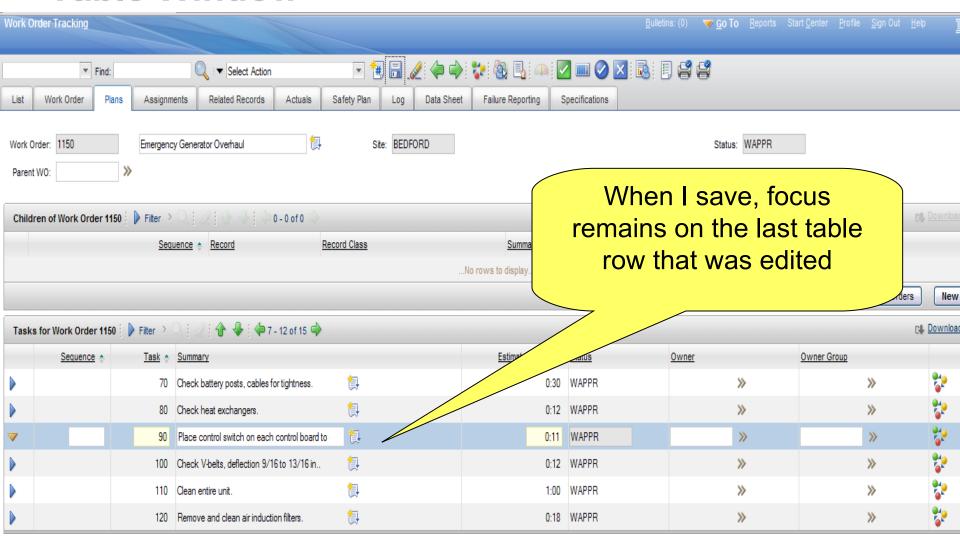




- The user spends lots of time in Maximo and does a lot of data entry, they asked us to:
 - "Anticipate what I will need next and present it to me (don't make me hunt for it)"
 - "Don't let me make avoidable errors"
 - "Help me to complete my tasks in as few steps as possible"
 - "Don't slow me down when I'm on a roll"
 - "My eyes are bad, sometimes I can't read the screen"
- What's coming?
 - Improved <u>Table window</u> refresh behavior
 - Enabled <u>'heads down' data entry</u> (asynchronous validation)
 - <u>Browser zoom</u> enabled, users can zoom in (ctrl+) or zoom out (ctrl-) of application screens
 - Faster <u>date/time look up</u> (new calendar control)
 - Rich-text editor (can format text the way they want to see it)

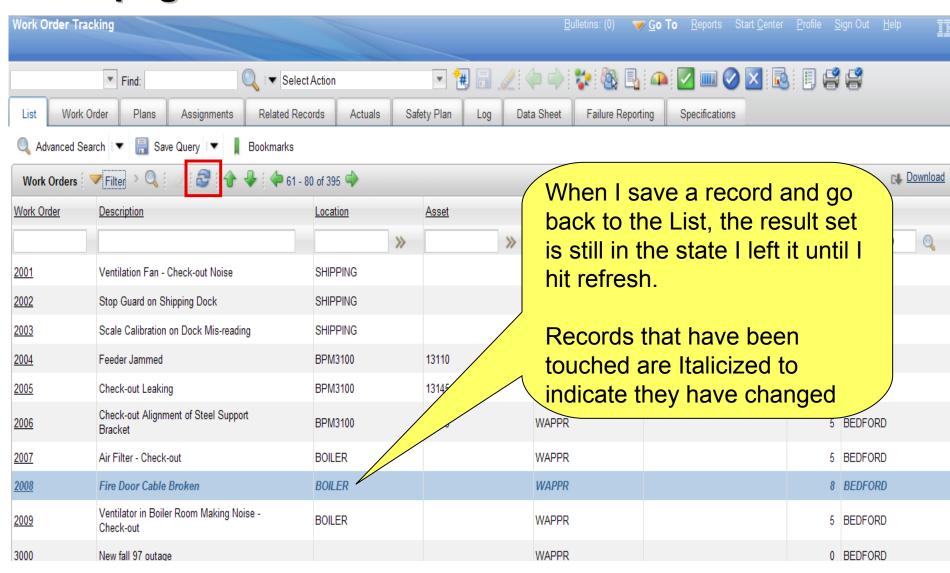


Table Window



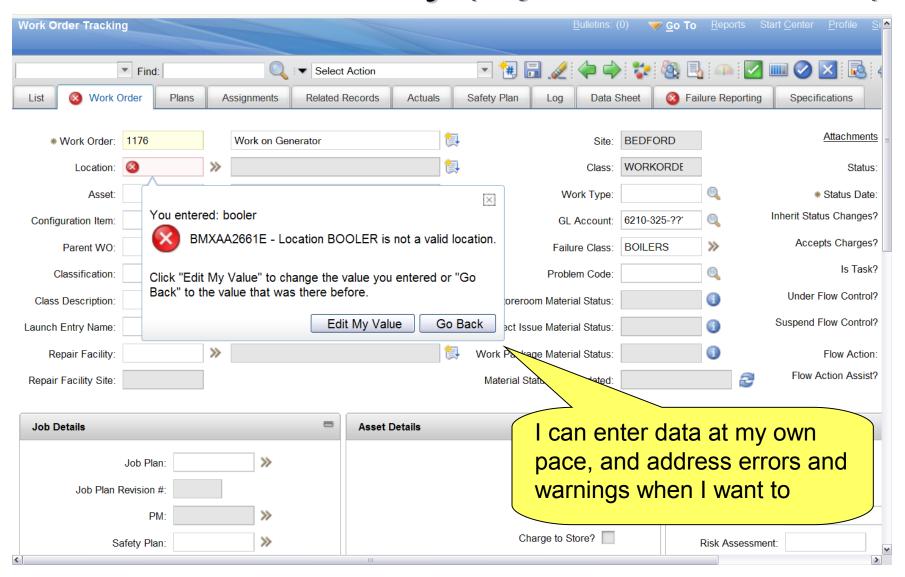


List page





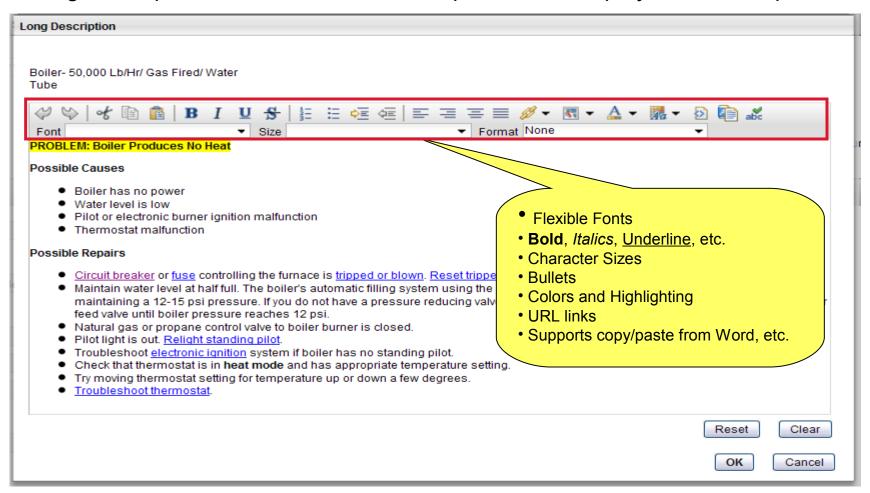
'Heads down data entry' (Asynchronous Validation)



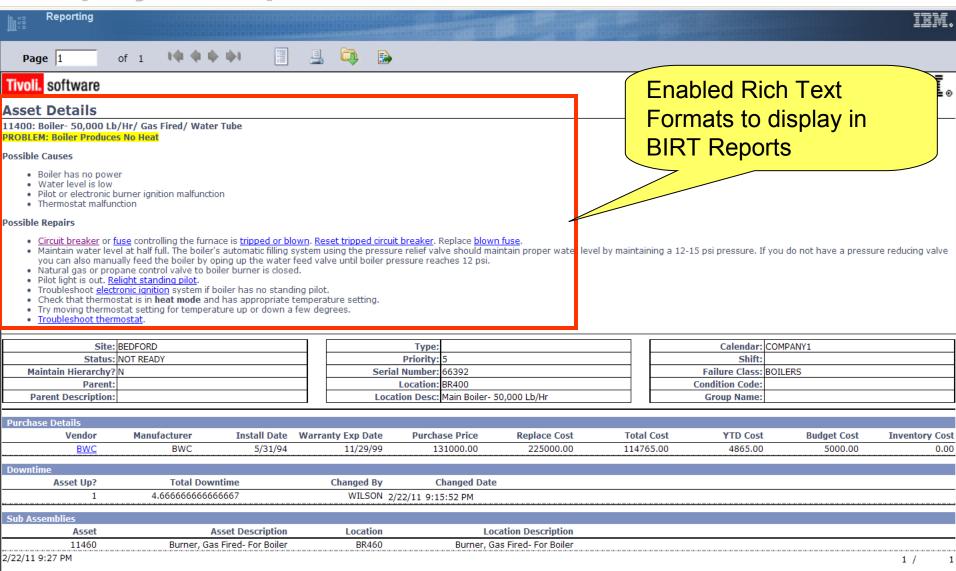


I can enter text in the format that I want on a Maximo screen. I don't need to rely on attachments for <u>rich-text formatting</u>.

Long Descriptions, Communication Templates and Displays in BIRT reports



Displays in reports

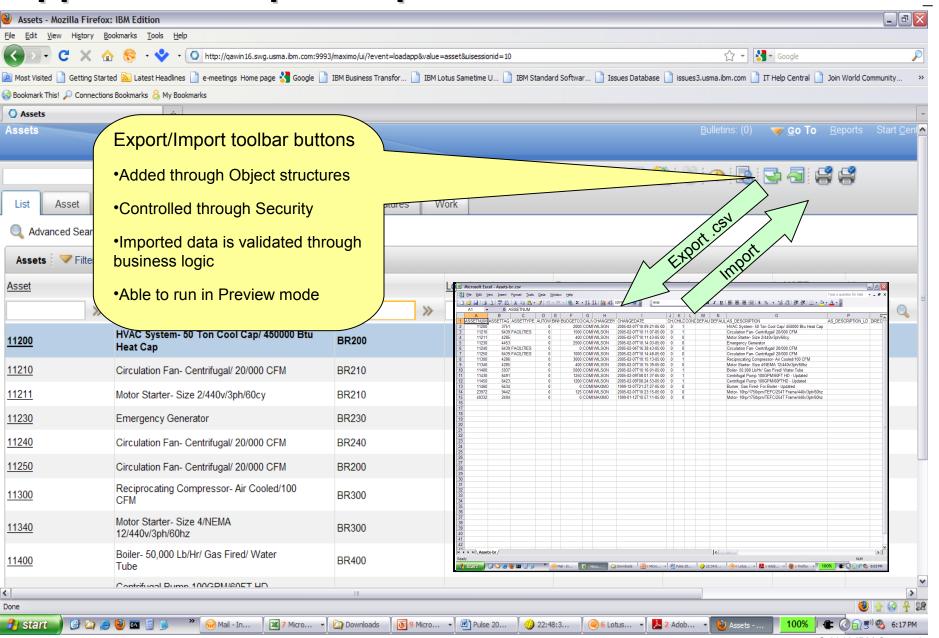




Maximo is pretty configurable, but there's always things to improve...

- -The Integration Framework is pretty powerful, but sometimes our business users have small sets of data they need access to or need to load into the system quickly: <u>Application Export/Import</u> can be configured through the UI. User can export a result set of records, make a series of quick changes within excel, xml, etc. and then import back to Maximo (bulk maintenance or loading small sets of new records)
- -We have developed some custom java class files to meet our business needs, however we'd like an easier way to configure logic without class files: With the <u>Automation Scripts</u> application, you can implement scripts to automate routine tasks without having to recompile Java files or restart the server. Permits an extra level of configuration capability (i.e. calculated fields)

Application Export/Import





Enhancements to Help

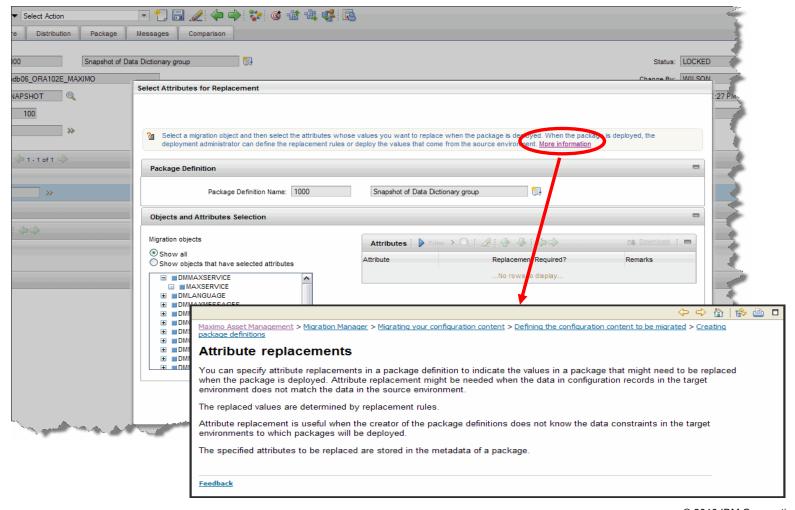
The overall objective toward the enhancements to Help is to allow the user to accomplish their work while staying in the product

Feature	Benefit
Technical content of the product is now in one information center and installed on the customer network	Permits better access to a more complete library of information.
A single search for all products	All help for all Service Management products available in one place!



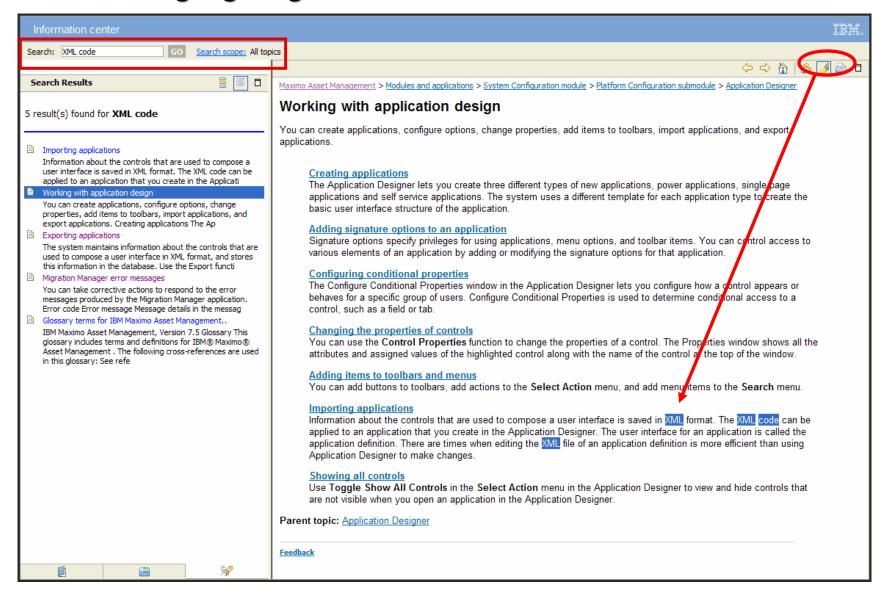
Accomplish your work while you stay in the product

- Information content improvements made to complex areas of product
- Included links to relevant topics for more information



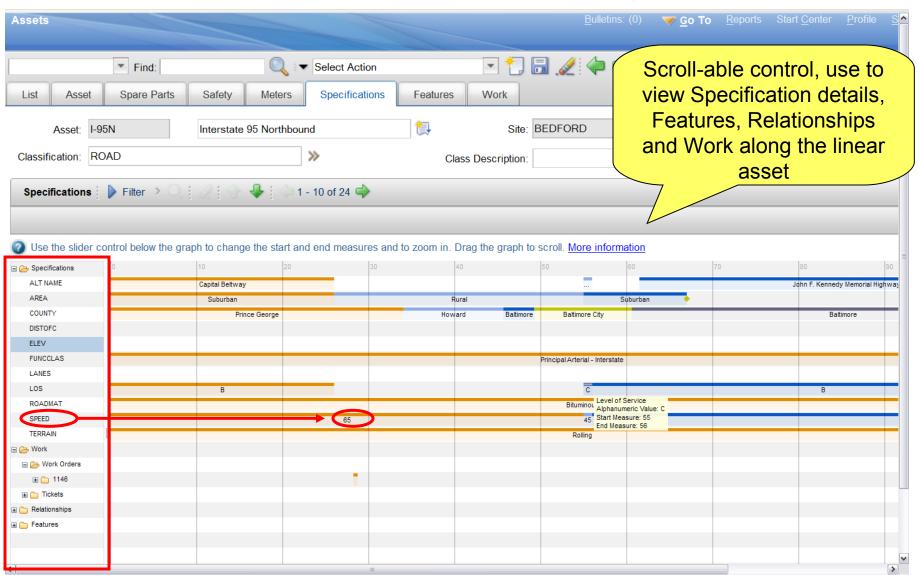


Search with highlighting





Linear Assets add-on: Visual Control





Additional Functionality





Continuing our innovation and leadership in the EAM market

- Maximo Functionality available out on ISM Library (OPAL) or through Support web site
 Available from IBM download site and is free to use for customers
- ITM for Maximo: Available for 6.2,x, 7.1 and 7.5 Used for monitoring performance of Maximo environment (search Support website for: Maximo Monitoring)





ECRI Interface: Available on 7.1 and 7.5

Provides real-time access to the AlertsTracker, a repository for hazard and recall alerts on medical devices. Identifies, within Maximo, any equipment on the hospital's inventory under a hazard and recall alert. (download from ISM Library)

■ Email for Maximo: Available on 7.1 (available end of March 2011)

Generates an email based on any condition. Receive a reply to update a record in Maximo. Send a confirmation email. Ideal for Work Order status updates and Approvals, workflow approvals. Works with BlackBerry or any email capable device (download from ISM Library)





BIM Integration: Coming soon

Part of the Facilities Mgmt story. More details available soon.



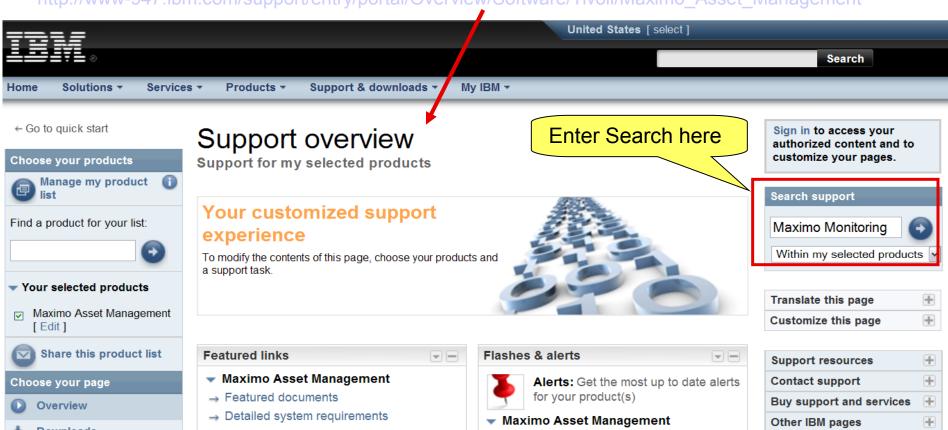
Download URL's

URL Link to the ISM Library for downloads

http://www-01.ibm.com/software/brandcatalog/ismlibrary/

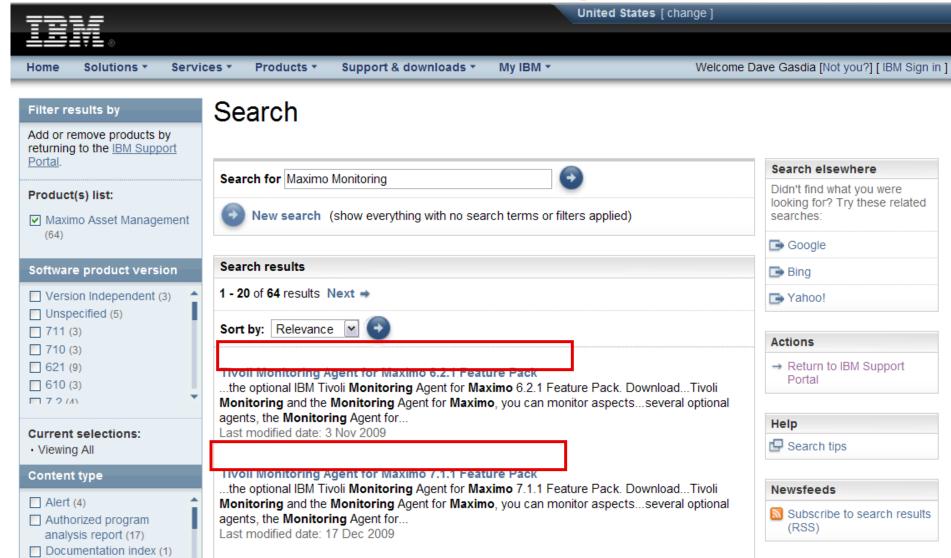
URL Link to the Maximo Asset Management Support website:

http://www-947.ibm.com/support/entry/portal/Overview/Software/Tivoli/Maximo_Asset_Management



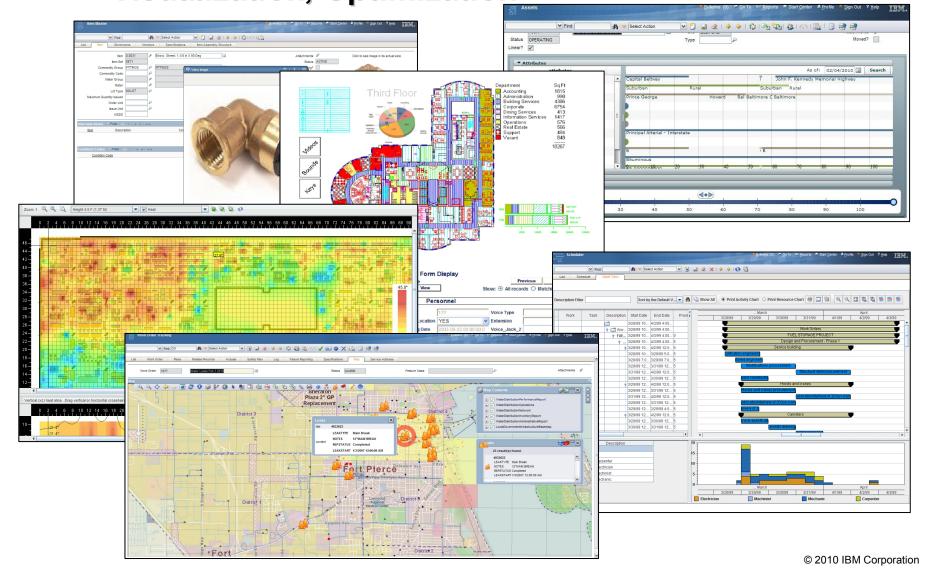


Downloads for Tivoli Monitoring for Maximo





Looking ahead: Focus on Innovation - Visualization, Optimization





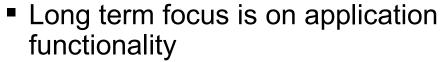
Application Development Technology

- Performance and Scalability
 - Dedicated team
 - Benchmarking
 - Identify framework improvements and recommendations
- Maintain and Extend supported platforms
 - Browsers (eg. Google Chrome, Safari)
 - Stay current with Application Server versions, DBMS (Oracle, DB2, MS SQL Server)
 - Operating Systems



Looking Out 5 to 10 Years...

- Products Evolve through Technology Lifecycles
 - 3rd Generation Architecture for Maximo
 - Convergence of Plant and IT networks
- Current J2EE Architecture is mature but with a long life
 - We expect to continually enhance architecture as standards mature, but not make fundamental changes



- In the Service and Asset Management Space
- Expect to leverage evolving technologies:
 - Continuous focus on industry specific functionality
 - Service Oriented Architecture
 - Trends toward SaaS
 - Asset based Active RFID devices
 - · GPS and GIS systems
 - Increase Mobile accessibility





Thank You....

